AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of claims:

1-35. (canceled)

36. (previously presented) A method for preparing an electrically conductive polymeric material comprising:

a) providing a vinyl benzyl halide grafted film substrate;

b) reacting the vinyl benzyl halide grafted film with an equimolar mixture of 4,4' bipyridine and p-xylene dihalide to form a viologen salt-grafted film;

c) coating the viologen salt-grafted film with polyaniline to form a polyaniline-coated film; and

d) exposing the polyaniline-coated film to near-ultraviolet radiation to obtain an electrically conductive polymer.

37-38. (canceled)

39. (currently amended) A method for preparing an electrically conductive polymeric material comprising:

a) contacting a polymeric material with [[a]] at least one viologen salt to form a pre-doped composition, wherein said polymeric material is capable of exhibiting electrical conductivity

upon oxidative doping, by forming the viologen salt *in situ* on a substrate to obtain a viologen-salt coated substrate and then forming the polymeric material *in situ* on the viologen-salt coated substrate; and

b) irradiating the pre-doped composition with electromagnetic radiation, thus producing an electrically conductive polymeric material.

40. (**canceled**)

41. (**new**) The method according to claim 39, wherein the electromagnetic radiation is of one or more UV or near UV wavelengths.

42. (**new**) The method according to claim 39, wherein a mixture of viologen salts is formed upon the substrate.

43. (**new**) The method according to claim 39 wherein at least one of the 1,1'-substituents of the viologen salt are independently selected from an alkyl group or a benzyl group.

44. (**new**) The method according to claim 39 wherein the at least one viologen salt formed is a polymeric viologen salt.

45. (**new**) The method according to claim 44, wherein the viologen salt moiety is present in the backbone of the polymeric viologen salt.

46. (**new**) The method according to claim 44, wherein the viologen salt moiety is present as a side chain of the polymeric viologen salt.

47. (**new**) The method according to claim 39, wherein the viologen salt is a viologen dihalide.

48. (**new**) The method according to claim 44, wherein the viologen salt is a viologen dihalide.

49. (**new**) The method according to claim 39 wherein the polymeric material is polyaniline, a polyaniline derivative, polypyrrole, a polypyrrole derivative or a mixture of at least two compounds selected from the group consisting of a polyaniline, a polyaniline derivative, a polypyrrole and a polypyrrole derivative.

50. (**new**) The method according to claim 39, wherein the irradiation step is conducted at a temperature of 0°C to approximately 80°C in the presence of air and in the absence of any solvent.

51. (**new**) The method according to claim 39, wherein the viologen-salt bearing substrate is made by a method comprising:

i) providing a vinyl alkyl halide grafted low density polyethylene film substrate;

an alkyl halide; and

4,4'-bipyridine;

ii) contacting the grafted film substrate with the 4,4'-bipyridine for a time sufficient to permit reaction therebetween forming a modified grafted film substrate;

iii) subsequently contacting the modified grafted film substrate with the alkyl halide for a time sufficient to permit the formation of a viologen-salt grafted film.

52. (**new**) A method for preparing an electrically conductive polymeric material comprising:

a) contacting a polymeric material with at least one viologen salt to form a pre-doped composition, wherein said polymeric material is capable of exhibiting electrical conductivity upon oxidative doping, by forming the polymeric material *in situ* on a substrate to obtain a polymer coated substrate and then forming the viologen salt *in situ* on the polymer coated substrate; and

b) irradiating the pre-doped composition with electromagnetic radiation, thus producing an electrically conductive polymeric material;

wherein both of the polymer and viologen salt are formed *in situ* by a method comprising:

i) providing a low density polyethylene film substrate; a solution of aniline or pyrrole; ammonium persulfate; a vinyl alkyl halide or vinyl benzyl halide; an alkyl halide; and 4,4'-bipyridine;

ii) immersing the polyethylene film substrate into the solution of aniline or pyrrole and ammonium persulfate for a period sufficient to form a polymeric coating on the substrate;

iii) contacting the coated substrate with the vinyl alkyl halide or vinyl benzyl halide;

iv) subjecting the mixture to UV or near UV irradiation for a time sufficient to form a vinyl alkyl halide or vinyl benzyl halide grafted substrate; and

v) forming the viologen salt on the vinyl alkyl halide or vinyl benzyl halide grafted substrate via reaction with 4,4' bipyridine and an alkyl halide.

53. (**new**) A method for preparing an electrically conductive polymeric material, comprising

a) forming a viologen salt in situ upon a substrate to obtain a viologen salt-coated substrate,

b) coating the viologen salt-coated substrate with a polymeric material to form a pre-doped composition, wherein said polymeric material is capable of exhibiting electrical conductivity upon oxidative doping; and

b) irradiating the pre-doped composition with electromagnetic radiation, thus producing an electrically conductive polymeric material.

54. (**new**) The method according to claim 53, wherein the irradiation step is conducted at a temperature of 0°C to approximately 80°C in the presence of air and in the absence of any solvent.

55. (**new**) The method according to claim 53, wherein the viologen salt is a viologen dihalide.

56. (**new**) A method for preparing an electrically conductive polymeric material, comprising

a) forming a viologen salt in situ upon a polymeric material to form a pre-doped composition, wherein said polymeric material is capable of exhibiting electrical conductivity upon oxidative doping; and

b) irradiating the pre-doped composition with electromagnetic radiation, thus producing an electrically conductive polymeric material.

57. (**new**) The method according to claim 53, wherein the irradiation step is conducted at a temperature of 0°C to approximately 80°C in the presence of air and in the absence of any solvent.

58. (**new**) The method according to claim 53, wherein the viologen salt is a viologen dihalide.